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10/658,225	09/08/2003	Justin K. Brask	42P17298	2688

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EXAMINER

DUDA, KATHLEEN

ART UNIT PAPER NUMBER

1756

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/658,225

**Applicant(s)**

BRASK, JUSTIN K.

**Examiner**

Kathleen Duda

**Art Unit**

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13, 14 and 16-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13, 14 and 16-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 13, 14 and 16-31 are pending in this application.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 13, 14 and 16-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims have been amended to recite that the metallic film contains 2 or more metals. This limitation is not taught by the specification as originally filed. The specification does not provide the teaching or examples for the lower limit of the range, i.e. "2".

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 13, 14 and 16-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 is not clear in reciting "a second metallic film" which is not impaired by the removal of portions of the first metallic film. The language does not provide a relationship between the two films as in the other claims which makes it clear that the second film is under the first film.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 13, 14 and 16-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Sasa (US Patent 4,445,364).

Sasa discloses a method for forming a metallic image. A metallic thin layer is formed over a support and a light-sensitive resin layer or image-wise etching resistant layer is formed, exposed and developed. Portions of the metallic layer not covered with the resist will be dissolved by etching (column 2, lines 8-44). The light-sensitive resin layer alone is first developed with the developing solution for the light-sensitive resin layer to form and to leave the image-like anti-corrosive film and the second development is made with the treating or developing solution for the metallic layer (column 4, lines 27-32). As the treating solution, a known treating solution can be employed in accordance with the metal to be used (i.e., solution is based on the composition of the metal film). Such treating solutions include aqueous alkaline solutions, aqueous acidic solutions and aqueous oxidizing solutions. The treating solution is prepared by adding the metal chelating agent. The metal chelating agent means a compound capable of producing a chelate compound with a metal of the metallic thin layer disposed over the substrate at the time of etching (i.e., chelating agent is selected based upon the composition of the metal film). See column 4, lines 42-68. The metal chelating agent is added to the treating solution at a concentration of 0.001 mole/L or more (column 5, lines 4-43).

8. Claims 13, 14 and 16-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Bojkov (US Patent 6,979,647).

Bojkov discloses a method for chemical etch control of noble metals in the presence of less noble metals. The removal of a first metal from the presence of a second metal is accomplished by placing the first and second metals in an oxidizing etchant solution containing a chelating agent which selectively forms a complex with the first metal (column 1, line 64 to column 2, line 6). Resist layer 201 defines the opening which exposes the metal seed layer (column 3, lines 63-67). The wafers are immersed in an oxidizing etchant solution which is usually a highly acidic bath. Chelating agents are added to the solution which binds the seed ions into chemical complexes. Dependent on the metal used in the seed layer one can select chelating agents specific for certain metals (column 5, lines 13-67).

### ***Double Patenting***

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d

937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 13, 14 and 16-31 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 15-19 of U.S. Patent No. 6,974,764. Although the conflicting claims are not identical, they are not patentably distinct from each other because while the wording is not identical both claim etching a metal layer using a resist mask and an etching solution comprising a chelating agent.

11. Claims 13, 14 and 16-31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/704,498. Although the conflicting claims are not identical, they are not patentably distinct from each other because while the wording is not identical both claim etching a metal layer using a resist mask and an etching solution comprising a chelating agent.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Response to Arguments***

12. In regards to the 102 rejection of the claims over Sasa, Applicant argues that Sasa does not teach 2 or more metals in the metallic layer. Sasa teaches metallic layers which can include Al as one component (column 6, lines 50-60). Example 3 teaches an AlFe alloy.

In regards to the 102 rejection of the claims over Bojkov, Applicant argues that Bojkov does not teach 2 or more metals in the metallic layer. In column 3, lines 26-28, Bojkov teaches Cu, Al or Al/CU alloy. Claims 8 and 14 recite a series of metals including an alloy.

In regards to the obviousness double patenting rejections of the claims over US Patent 6,974,764 and US Patent Application 10/704,498, Applicant argues the claims have been amended but does not provide arguments for how the claims should no longer be considered obvious over the patent and patent application cited.

### ***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE**



**FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication should be directed to Examiner K. Duda at (571) 272-1383. Official FAX communications should be sent to (571) 273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff, can be reached at 571-272-1385.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Kathleen Duda  
Primary Examiner  
Art Unit 1756